

Lectures covering various Series in Emergency Medicine (SEMs)

Series	Week	Title	Topics
Sports Medicine	007	Introduction to Sports Medicine	<ul style="list-style-type: none"> History State of the specialty Functioning as a team physician <ul style="list-style-type: none"> Definition of the team physician Qualification Duties Sideline preparedness Ethical principles as applied to exercise and sports <ul style="list-style-type: none"> Beneficence Autonomy Banned substances Medical-legal aspects of exercise and sports <ul style="list-style-type: none"> Confidentiality Malpractice Good Samaritan laws
	015	The Spine-Injured Athlete	<ul style="list-style-type: none"> Anatomy and biomechanics of the spine Mechanisms of trauma Physical examination Fracture/dislocations Ligamentous injury Extra-axial injury Management of the spine-injured athlete in the field and ED
	023	Sport-Related Head Injury	<ul style="list-style-type: none"> Concussion <ul style="list-style-type: none"> Definition Epidemiology Pathophysiology Evaluation Complications Return to play decisions
	032	Sudden Death in Athletes	<ul style="list-style-type: none"> Sudden death <ul style="list-style-type: none"> Causes of sudden death based on age Lethal arrhythmiae <ul style="list-style-type: none"> HCM Prolonged QT syndrome Commotio cordis Coronary artery aberrancy Atherosclerotic coronary artery disease Nonlethal dysrhythmiae <ul style="list-style-type: none"> Common arrhythmias in athletes 26th Bethesda Conference recommendations
	037	The Athlete's Shoulder	<ul style="list-style-type: none"> Anatomy and biomechanics Demands of the throwing athlete <ul style="list-style-type: none"> Five phases of overhand throwing Physical examination Rotator cuff injury (acute and chronic) Impingement Instability Ligamentous injury Brachial plexus injury Dislocation

	047	Athlete Nutrition and Fluid Balance	Determinants of exercise fuel usage Carbohydrate recommendations for athletes Protein Recommendations Fat recommendations Requirements and recommendations Vitamins Minerals Hydration Functions of water Fluid loss and performance Hydration recommendations Electrolyte considerations/hyponatremia Beverage considerations
	062	The Athlete's Ankle and Foot	Ankle Anatomy and biomechanics Physical examination Ligamentous injury Fracture Malleolar Talus Foot Anatomy and biomechanics Physical examination Fractures (acute and stress) Lisfranc joint injury Metatarsalgia Morton's neuroma Frieberg's infarction Turf toe Bunions Plantar fasciitis
	070	The Athlete's Knee	Anatomy and biomechanics Physical examination Ligamentous injury ACL and PCL MCL and LCL Tendon & connective tissue injury Patella Quadriceps Pes anserine Iliotibial band Meniscal injury Anterior knee pain Dislocation (patella and knee)
	079	Pediatric Sports Injuries	Age-appropriate activity Strength training Abnormal development Delayed puberty Primary amenorrhea Musculoskeletal injuries unique to children Salter-Harris classification Epiphyseal & apophyseal injuries Spondylolysis and spondylolisthesis

	087	Female, Elderly, and Disabled Athletes	Female athlete Pregnancy Eating disorders Female athlete triad Elderly athlete Changes of aging Cardiovascular Respiratory Renal Metabolic Neuropsychiatric Musculoskeletal Disease states and exercise Preparticipation physical examination Exercise prescriptions Disabled athlete Pattern of injury Physiological response to exercise
	095	Exertional Heat Illness	Continuum of illness and their interventions Heat cramps Heat exhaustion Heat stroke Heat syncope Hyponatremia Prevention Acclimatization
	111	Contusions, Strains, Sprains, and Overuse Injuries	Contusions Pathophysiology Management of contusions Myositis ossificans Strains Pathophysiology Common strains and their treatment Sprains Pathophysiology Common sprains and their treatment Overuse injuries Tendinosis and tendinopathy Stress fractures
	119	Winter Sports	Cold injury Hypothermia Frostbite Principles of cold weather protection Altitude Pathophysiology of altitude Acute mountain sickness High-altitude pulmonary edema High-altitude cerebral edema Training at altitude Exercise-induced bronchoconstriction Patterns of injury Skiing Snowboarding

	127	Ergogenic Aids and Supplements	Pharmacology and effects of therapeutic, performance-enhancing, and mood-altering drugs Specific agents Ergogenic aids Creatine Caffeine Amino acid supplementation Blood doping Banned substances WADA banned substance list Ephedrine and ephedra Anabolic-androgenic steroids AAS Testosterone precursors and prohormones Illicit drug use NSAIDs Corticosteroids Injections Systemic
	135	Exertional Rhabdomyolysis and Compartment Syndrome	Exertional rhabdomyolysis Epidemiology Risk factors Diagnosis/treatment Compartment syndromes Acute versus exertional Low leg pain in runners Diagnosis and management
	143	Exercise and Illness	Gastrointestinal problems Upper tract Gastroesophageal reflux disease Impaired gastric emptying Lower tract Exercise-associated diarrhea Lower GI bleeding Pulmonary problems Exercise-induced asthma Pathophysiology Diagnosis Management Infectious disease Immune system and exercise Effects of fever and illness on exercise Return-to-play guidelines HIV positivity Dermatological problems